

AMENDMENTS TO THE CLAIMS

1. **(Currently Amended)** An isolated nucleic acid molecule comprising:
 - a) a nucleotide sequence comprising a full length open reading frame which encodes an amino acid sequence exhibiting at least 85% sequence identity to an amino acid sequence in the Sequence Listing;
 - b) a nucleotide sequence that is complementary to any one of the nucleotide sequences according to paragraph (a);
 - c) a nucleotide sequence capable of hybridizing to a nucleotide sequence according to any one of paragraphs (a) – (c) under conditions that permit formation of a nucleic acid duplex at a temperature from about 5°C to 10°C below the melting temperature of the nucleic acid duplex; or
 - d) a nucleotide sequence comprising a full length reading frame which has at least 85% sequence identity to a nucleotide sequence in the Sequence Listing,

with the proviso that (a) said amino acid sequence is not SEQ ID NO. 1016630 (peptide ID 4338956), SEQ ID NO. 3626759 (peptide ID 4338956), SEQ ID NO. 1016631 (peptide ID 4338957), SEQ ID NO. 3626760 (peptide ID 4338957), SEQ ID NO. 1344534 (peptide ID 4839246), SEQ ID NO. 3204584 (peptide ID 4839246), SEQ ID NO. 900077 (peptide ID 4839246), SEQ ID NO. 1344535 (peptide ID 4839247), SEQ ID NO. 3204585 (peptide ID 4839247), SEQ ID NO. 900078 (peptide ID 4839247), SEQ ID NO. 1275031 (peptide ID 4273024), SEQ ID NO. 177276 (peptide ID 4273024), SEQ ID NO. 3135077 (peptide ID 4273024), SEQ ID NO. 803473 (peptide ID 4273024), SEQ ID NO. 1275032 (peptide ID 4270325), SEQ ID NO. 177277 (peptide ID 4273025), SEQ ID NO. 3135078 (peptide ID 4273025), SEQ ID NO. 803474 (peptide ID 4273025), SEQ ID NO. 3983472 (Ceres SEQ ID NO. 1941385) or SEQ ID NO. 3983473 (Ceres SEQ ID NO. 1941386); and (b) said nucleotide sequence in the Sequence Listing is not SEQ ID NO. 1016629 (cDNA ID 4338955), SEQ ID NO. 3626758 (cDNA ID 4338955), SEQ ID NO. 1344533 (cDNA ID 4839245), SEQ ID NO. 3204583 (cDNA ID 4839245), SEQ ID NO. 900076 (cDNA ID 4839245), SEQ ID NO. 1275030 (cDNA ID 4273023), SEQ ID

NO. 177275 (cDNA ID 4273023), SEQ ID NO. 3135076 (cDNA ID 4273023), SEQ ID NO. 803472 (cDNA ID 4273023) or SEQ ID NO. 3983471 (Ceres SEQ ID NO. 1941384).

2. **(Currently Amended)** An isolated nucleic acid molecule comprising a nucleic acid having a nucleotide sequence which exhibits at least 95% sequence identity to
- a) a nucleotide sequence shown in Tables 1 or 2 or a fragment thereof; or
 - b) a complement of a nucleotide sequence described in Tables 1 or 2 or a fragment thereof,

with the proviso that said nucleotide sequence is not SEQ ID NO. 1016629 (cDNA ID 4338955), SEQ ID NO. 3626758 (cDNA ID 4338955), SEQ ID NO. 1344533 (cDNA ID 4839245), SEQ ID NO. 3204583 (cDNA ID 4839245), SEQ ID NO. 900076 (cDNA ID 4839245), SEQ ID NO. 1275030 (cDNA ID 4273023), SEQ ID NO. 177275 (cDNA ID 4273023), SEQ ID NO. 3135076 (cDNA ID 4273023), SEQ ID NO. 803472 (cDNA ID 4273023) or SEQ ID NO. 3983471 (Ceres SEQ ID NO. 1941384).

3. **Canceled**

4. **Canceled**

5. **Canceled**

6. **(Original)** A vector construct comprising:

- a) a first nucleic acid having a regulatory sequence capable of causing transcription and/or translation; and
- b) a second nucleic acid having the sequence of the isolated nucleic acid molecule according to claim 1;

wherein said first and second nucleic acids are operably linked and wherein said second nucleic acid is heterologous to any element in said vector construct.

7. **(Original)** The vector construct according to claim 6, wherein said first nucleic acid is native to said second nucleic acid.
8. **(Original)** The vector construct according to claim 6, wherein said first nucleic acid is heterologous to said second nucleic acid.
9. **(Original)** A host cell comprising an isolated nucleic acid molecule according to claim 1, wherein said nucleic acid molecule is flanked by exogenous sequence.
10. **(Original)** A host cell comprising a vector construct of claim 6.
11. **(Currently Amended)** An isolated polypeptide comprising an amino acid sequence
 - a) exhibiting at least %85% sequence identity to an amino acid sequence in the Sequence Listing; and
 - b) capable of exhibiting at least one of the biological activities shown in Tables 1 or 2,

with the proviso that said amino acid sequence is not SEQ ID NO. 1016630 (peptide ID 4338956), SEQ ID NO. 3626759 (peptide ID 4338956), SEQ ID NO. 1016631 (peptide ID 4338957), SEQ ID NO. 3626760 (peptide ID 4338957), SEQ ID NO. 1344534 (peptide ID 4839246), SEQ ID NO. 3204584 (peptide ID 4839246), SEQ ID NO. 900077 (peptide ID 4839246), SEQ ID NO. 1344535 (peptide ID 4839247), SEQ ID NO. 3204585 (peptide ID 4839247), SEQ ID NO. 900078 (peptide ID 4839247), SEQ ID NO. 1275031 (peptide ID 4273024), SEQ ID NO. 177276 (peptide ID 4273024), SEQ ID NO. 3135077 (peptide ID 4273024), SEQ ID NO. 803473 (peptide ID 4273024), SEQ ID NO. 1275032 (peptide ID 4270325), SEQ ID NO. 177277 (peptide ID 4273025), SEQ ID NO. 3135078 (peptide ID 4273025), SEQ ID NO. 803474 (peptide ID 4273025), SEQ ID NO. 3983472 (Ceres SEQ ID NO. 1941385) or SEQ ID NO. 3983473 (Ceres SEQ ID NO. 1941386).

12. **(Original)** An antibody capable of binding the isolated polypeptide of claim 11.
13. **(Original)** A method of introducing an isolated nucleic acid into a host cell comprising:
 - a) providing an isolated nucleic acid molecule according to claim 1; and
 - b) contacting said isolated nucleic with said host cell under conditions that permit insertion of said nucleic acid into said host cell.
14. **(Original)** A method of transforming a host cell which comprises contacting a host cell with a vector construct according to claim 6.
15. **(Original)** A method of modulating transcription and/or translation of a nucleic acid in a host cell comprising:
 - a) providing the host cell of claim 9; and
 - b) culturing said host cell under conditions that permit transcription or translation.
16. **(Original)** A method for detecting a nucleic acid in a sample which comprises:
 - a) providing an isolated nucleic acid molecule according to claim 1;
 - b) contacting said isolated nucleic acid molecule with a sample under conditions which permit a comparison of the sequence of said isolated nucleic acid molecule with the sequence of DNA in said sample; and
 - c) analyzing the result of said comparison.
17. **(Original)** A plant or cell of a plant which comprises a nucleic acid molecule according to claim 1 which is exogenous or heterologous to said plant or plant cell.
18. **(Original)** A plant or cell of a plant which comprises a vector construct according to claim 6.

19. **(Original)** A plant which has been regenerated from a plant cell according to claim 17.
20. **(Original)** A plant which has been regenerated from a plant cell according to claim 1.